

LOUISIANA TECHNOLOGY INNOVATION FUND PROPOSAL

I PROJECT TITLE

Louisiana's e-Government Portal

II PROJECT LEADER

Ms. Karen Paterson
Office of Electronic Services
P O Box 94095, Capitol Station
Baton Rouge, LA 70804
Phone: (225) 219-4025
FAX: (225) 219-4027
email: kpaters@doa.state.la.us

III EXECUTIVE SUMMARY

This project will establish an enterprise level State e-Government Portal focused on ensuring that Louisiana can meet the increasing demands of its constituents for immediate, comprehensive access to state government. Figure 1 depicts the concept for the State Portal. It will provide constituents a convenient gateway to business functions across the entire state enterprise, supporting a variety of electronic access channels.

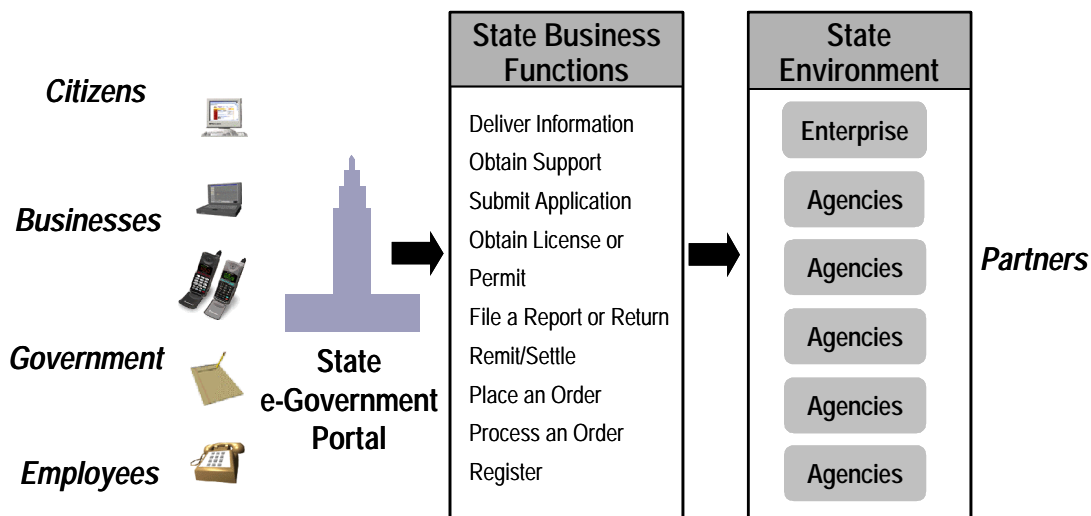


Figure 1. – Louisiana e-Government Portal Concept

The Office of Electronic Services (OES) proposes a twenty-four month project to implement:

- ✍ A portal architecture to host the State Portal and extensible to agency web sites in a platform consistent with the enterprise security architecture standard being established by the Office of Information Technology (OIT).
- ✍ The initial State e-Government Portal to be operational in month seven.
- ✍ A content management system allowing agencies to better manage their information assets.
- ✍ A customer relationship management system ensuring that needs and concerns of users of the state portal are addressed accurately, timely, and consistently.

Louisiana's e-Government Portal

- Four agency portals delivered in months seven and eight demonstrating the applicability and effectiveness of the portal platform as a statewide resource.

OES is the project manager with resources being provided by the Office of Computing Services (OCS), the Department of Natural Resources (DNR), agency partners, and contractual relationships.

The success of this project requires the support of the Louisiana Technology Innovations Fund. We are requesting \$998,590 in seed funding to obtain the technology goods and services, not available from the participants' resource base, that are necessary to implement and host the Louisiana e-Government Portal.

IV DESCRIPTION OF THE PROJECT

A. Project Narrative

1. Purpose. The purpose of this project is to establish an e-Government Portal for Louisiana that will provide citizens and businesses ready access to state information and services. The explosive expansion of technology into all aspects of life is changing the way individuals live and work, how business is conducted, and how governments serve their constituents and interact with other governmental entities. Government's response to this development is commonly referred to as e-Government, which is the use of technology to improve access to and delivery of government information and services to its citizens, business partners, and employees.

State initiatives in Louisiana have provided significant improvements through automation; however, citizens are demanding even greater improvements because of their technology-based experiences in the commercial world. Citizens want the same one-stop shopping and service in an instant from government that they are enjoying from private business. This project will establish the hardware and software foundation and launch the initial e-Government Portal technology platform that will allow the state to meet these growing expectations in an efficient, cost effective manner. An important feature of this project is the migration of existing web assets such as InfoLouisiana, the Louisiana Services Directory, Louisiana News, Announcements and Notifications, and agency web sites into the new environment thereby eliminating redundancy and reducing project time, cost, and risk.

2. Business Approach. The Office of Electronic Services (OES) will organize and manage the multi-agency project to establish Louisiana's e-Government Portal. OES is leading this initiative because of Louisiana R.S. 39:16.3(A)(15) which mandates OES "To provide an Internet portal to serve as a gateway to all state information that is electronically available online from agency web sites". The e-Services focus group, which includes representatives from seven state agencies/offices, will provide technical and management advice to OES throughout the project. The agency partners will manage individual website developments. The Office of Computing Services (OCS) and Department of Natural Resources (DNR) will operate and maintain the computing environment that will host the portal. OES will work with the Office of State Purchasing and the Office of Contractual Review to create contractual relationships with highly qualified professional services firms, product manufacturers, and service providers who will be responsible for:

- Design, development, and support of the e-Government Portal
- Design, development, and support of the content management and customer relationship management components
- Providing software components to implement the portal, the content management, and the customer relationship management functionality and to allow individual agencies to adopt that functionality, as appropriate, for their web sites
- Providing additional hardware, electronic connectivity and personnel expertise necessary to establish and maintain the portal hosting environment.

3. Areas of Interest. It is essential that this initiative be approached from a statewide, common perspective because two of the underlying principles of e-Government are to provide "one face to

Louisiana's e-Government Portal

government” for its constituency and to ensure that the offerings are comprehensive. Through portal technology these objectives can be accomplished. Under the portal concept, government can be accessed in various contexts such as a life event, an intention-based scenario, as a member of a community of interest or based on personal preferences. Consequently, information and services responses must be presented in a seamless fashion without regard to government organizational structure. Examples of life events are:

- ✍ Moving to or within Louisiana
- ✍ Starting a new business in the state
- ✍ Changing jobs
- ✍ Enrolling in a Louisiana institution of higher learning
- ✍ Marriage
- ✍ Death

Communities of interest that will be addressed by the e-Government Portal are:

- ✍ Citizens to state government
- ✍ Businesses to state government
- ✍ Other governments to state government
- ✍ Businesses operating in the state
- ✍ State agencies to one another
- ✍ State employees to state government
- ✍ Non-residents to state government

The implementation approach for the portal includes integrating key existing Web assets of state government. The coordination of this integration effort will be accomplished through agency representatives to the State Web Council and the Council for Information System Directors.

4. Goals and Objectives

Upon implementation of the proposed concept as shown in Figure 1 above, the State will have a platform supporting a fully functional e-Government Enterprise Information and Services Portal where citizens, private industry, employees, and other government entities can electronically access state government informational resources or conduct transactions with the state. Initially the predominant access channel will be via the Internet using desktop and personal computers, however, the initiative includes extending access through wireless, kiosk, and telephonic technologies.

The scope of the implementation covered by this proposal includes establishing the State Portal and the associated content management and customer relationship management capabilities and extension of these capabilities to enable web sites for four partner agencies.

When it has been demonstrated that agency websites can be effectively hosted on the portal platform, additional agencies may migrate their web presence to the shared services portal platform. New agencies may use the Consulting Services and Support Agreements (CSSAs) being established by Office of Information Technology (OIT) to obtain resources to assist in migrating to and maintaining their web sites on the portal platform. In addition, agencies may enter into an agreement with OCS to host their web site on the shared services portal platform. Funding for these extensions are outside the scope of this proposed project.

Louisiana's e-Government Portal will offer a wide range of advanced features and functions available through portal technology, including:

- ✍ *Customer Centric* - The portal will reflect a view consistent with the needs of citizens or businesses for government information and services rather than conventional web site structured around government organization. This view will be selectable by users based on their individual needs.
- ✍ *Personalization* – Users of the portal can customize their view by selecting web pages that bring together information and transaction resources specific to their job or areas of interest.
- ✍ *Collaboration* – Users can create pages of content and transactional resources that allow work groups, departments, project teams, or communities of interest to share information or collaborative tools.

Louisiana's e-Government Portal

- ✍ *Ease of Use* – A major advantage of portal technology over conventional web sites is the improvement in ease of use. Portals accomplish this by actively pushing appropriate informational and transactional resources directly to the users' point of entry to create a personalized portal, substantially reducing the requirement to navigate to locate target items.
- ✍ *Comprehensive, discoverable, current information* – A fully featured content management system implemented with a well-structured operational process will facilitate contribution of content in a timely manner. Coupled with an advanced search capability, the robust indexing capabilities of content management will ensure that information requests are satisfied
- ✍ *Secure* – Users and agencies will be assured that the privacy, confidentiality, and integrity of their information, transactions and relationship with the state are protected.
- ✍ *Responsive* – Portal platform performance will be constantly monitored to ensure that users are provided reliable, responsive service. Through the customer relationship management feature, users will have access to self-service customer support 24 hours a day to obtain assistance and address specific issues.
- ✍ *Scalable* – The portal platform will be capable of being rapidly expanded as the number of users grows and the number of participating agencies increases
- ✍ *Extensible* – The portal structure will permit rapid incorporation of new features with no impact to baseline capabilities
- ✍ *Upgradeable* – The portal platform will be designed to take advantage of emerging technology and "Best Practices".

B. Use of Innovative Technology

The Louisiana e-Government Portal is a particularly innovative approach to making state government available to citizens, businesses, and employees because it allows users control of their relationship with government. This is accomplished using *Personalization* technology. *Personalization* allows users to specify items such as areas of interests, applicable life events, or intention based activities that are used to structure the user view of government. Specific content and web applications that match user-specified items are pushed to the user view. This eliminates the need for extensive web page navigation and searches, and results in delivery of relevant information and access to appropriate transactional offerings in a fraction of the time and effort required in typical web sessions. The *Personalization* technology is provided as a key component of the Web Application Server software.

This project differs from the typical web site applications because of the use of *Portlets*, a new technology that significantly speeds web application development and testing time. *Portlets* are live areas of HTML or XML, which represent an information source in a standardized, consistent, and secure manner. They can be created to access nearly any type of Web accessible information from State News, meeting notices, files published on agency web sites or data managed at the enterprise level. Pre-existing *Portlets* can be easily incorporated into new portal applications. The *Portlet* technology is provided as a component of the Web Application Server software.

A third important innovative technology being applied in this project that is new to the state environment is *Content Management*. *Content Management* will provide a common process and set of automated tools that agencies can use to create, deploy and control their agency critical Web content. A key feature of this technology is that it supports management of information content at all levels; the enterprise, the department, the agency, and the office. Two important benefits of this *Content Management* approach are; (1) that information will be managed in a standards-based XML environment, which facilitates interoperability, and (2) information will be tagged using a robust, state government specific taxonomy that will greatly increase the ability to rapidly locate pertinent multi-agency information and resources. The *Content Management* technology is provided by a "best of breed" content management software package.

The fourth innovative technology proposed for this project is the *Customer Relationship Management (CRM)* component. *CRM* provides a single point of interaction with the State for citizens, businesses and employees who have questions, comments or concerns. The technology

Louisiana's e-Government Portal

empowers users of the portal to find answers to their questions and concerns about the state through an automated "self-help" mechanism that will reduce email and phone calls and improve the overall quality of service provided. It is structured to deliver accurate and consistent information to users. The workflow management element of CRM ensures that all concerns and requests for information are addressed in a timely, satisfactory manner.

C. Multi-agency Application or Portability to Other Agencies

By its very nature, this is a multi-agency application. For example, the proposed Content Management system will permit agencies to contribute content to enterprise level data stores such as Louisiana News and the events calendar and at the same time can be used by agencies to create and maintain their agency specific information content.

Moreover, the proposed hardware/software environment is designed for multi-agency web site hosting. OCS provides the capability to co-host agency applications in a shared environment. This project will extend that capability by demonstrating that agency web applications can be rapidly ported to the shared environment. OES has partnered with agencies to demonstrate the multi-agency application and portability of the proposed portal environment. The Office of the Commissioner of Administration, Office of Information Technology, Office of Elderly Affairs, Office of Women's Services, and the Children's Cabinet will host their websites in the same, shared environment used to host the State Portal. Upon demonstration that the portal environment is favorable for hosting multi-agency applications, other agencies will be encouraged to migrate their web applications to the common hosting environment when they significantly change or upgrade their website.

D. Benchmarking Partners and Best Practice References

In the last year, four states have launched enterprise portal websites that ensure there is no wrong door to their government. Each of these Portals feature content management, personalization, and search applications to enable users to readily discover the relevant information. These implementations are excellent benchmarks for Louisiana's Portal initiative.

California: My California (http://www.state.ca.us/state/portal/myca_homepage.jsp)

California's Portal provides the most comprehensive and, more important, discoverable state information because of its effective content management, channeled personalization, push content, dynamic update, and intelligent customer interaction. For example, when residents of a particular area (through county or zip code data) actively search for senior services information, state agencies that provide these services can be automatically informed about the need for these services by their constituents.

The organization of the portal was an important prerequisite of the project. The State Library created a comprehensive external taxonomy, the content management software provided the internal taxonomy, and the search engine indexes information resources from all sources (web pages, databases, legacy systems) based on both taxonomies to ensure advanced and sophisticated searches with a minimum of user skill.

To be relevant to all its constituents, versions of the web site can be accessed through wireless services: PDA's, cell phone, including options for wireless notifications such as traffic updates and energy alerts. To protect the privacy of users, there are no cookies. Therefore, there is no automatic login to personalized "My California;" passwords are used instead.

Washington: Access Washington (<http://access.wa.gov/>)

Access Washington provides a seamless bundling of services, resources, and information from state agencies; and in terms of comprehensiveness, logical organization, ease of navigation, and search capabilities, it is one of the best state enterprise portals on the Internet. It focuses particularly well on tourism, environment, social and health services, and education (one can apply online to all the community and technical colleges in Washington).

Louisiana's e-Government Portal

"Ask George," a comprehensive search and retrieval application is exemplary; it provides possible answers to searches with opportunities to refine answers, and a list of additional related information resources. Access Washington is also one of only two states that offer digital certificate which has three levels of assurance.

Pennsylvania: PA Power Port (<http://www.state.pa.us/PAPower/>)

A valuable service that the portal offers is Pennsylvania's "Open for Business" website; it ensures that new and expanding businesses provide information *only once* during their online registration interview but *each state agency receives only the data it needs to satisfy its requirements*. A single application for assistance allows businesses and local governments to apply simultaneously for one or more community and economic development assistance (businesses, technical and financial) programs from a comprehensive list of assistance and incentive packages. The application is processed centrally, and the business is directed to the contacts for the appropriate financing program from the lists provided in the Business Finance Matrix and Community Resource Directory. Both resources provide a description of the programs offered, eligibility, the terms, amount available, and where to apply.

A personalization component, "Keep me informed," provides notification information, but it is limited to tourism, entrepreneurial assistance and financing, legislative affairs, community services, ports and export development, and film projects.

North Carolina: NC at your service (<http://www.ncgov.com/>)

State government information follows a traditional presentation of mission and objectives; the state calendar focuses mostly on tourism and art events.

The state portal focuses on three main organizational categories: Citizens, Employees, and Business. Information presentation, including search results, is Yahoo driven. It is the only state of the four described here that has a visible and fairly comprehensive Spanish language component (link from the Citizen interface <http://www.ncgov.com/asp/subpages/intention.asp?P=2&I=75>).

Over one-half of states are initiating statewide e-procurement efforts on some level, and North Carolina is a leader. Its enterprise approach involves integration across all state agencies and local governments eliminating multiple, paper-intensive purchasing systems. It will offer the first across the board e-procurement initiative in the country. The E-Procurement project team plans to have 47 statewide contracts, representing 56% of the dollar value of all Statewide Term Contracts. It will integrate and automate the purchase and delivery of goods across state agencies and with educational institutions and local governments; it is projected to save an estimated \$52.4 million per year when fully operational in three years.

E. Long-range Planning

The Louisiana e-Government Portal project is the cornerstone of LAConnections Goal 1 - "To provide world-class government services to its citizens and other customers through use of technology, especially the Internet". More specifically, the project fully implements Goal 1 Task 3 whose objective is to "Provide a *single state e-government Internet portal* for integrated service delivery". This project is structured to ensure that the LA Connections vision for Digital Government in Louisiana is achieved by establishing an infrastructure that accommodates growth, new applications, and technology advancements as normal business practice. More importantly, the portal offering, which will be delivered in the seventh month of the project, should bring Louisiana into the top ten states in e-Government capabilities.

F. Performance Goal

The key to the success of the State Portal project is the extent to which it provides information and services that meet users needs in a consistent, uniform format. The success of the portal for the three years following implementation will be measured based on the following indicators:

Louisiana's e-Government Portal

| Indicator Name | Indicator Value |
|--|--------------------|
| Percentage of users whose requests are handled through the basic structure of the portal. These users will have no need to access the CRM functionality. | FY 2004/2005 - 70% |
| | FY 2005/2006 - 80% |
| | FY 2006/2007 - 85% |
| Percentage of users referencing CRM whose needs are satisfactorily accommodated without escalation to an individual. | FY 2004/2005 - 40% |
| | FY 2005/2006 - 50% |
| | FY 2006/2007 - 60% |
| Percentage of project participant's web pages that have adapted the stand design template | FY 2004/2005 - 80% |
| | FY 2005/2006 - 90% |
| | FY 2006/2007 - 95% |

G. Technical Approach

1. Technical description. Figure 2 is a diagram of the e-Government Portal architecture. This architecture provides a common framework that will be used to provide access to enterprise level and agency level content and transactions. At the core of the architecture is the portal platform. This includes the hardware and software components that implement the e-Government portal functionality and that provide the interfaces for User access and connectivity to External Resources. As shown, the architecture supports access by all User groups - citizens, businesses, other government entities and employees. There are also interfaces to external resources such as agency and federal government data sources, agency applications and websites, business partner websites, and the portal development environment.

A Web Application Server (shown later in Figure 4) is proposed as the *Portal Platform* to host Louisiana's e-Government Portal. The portal platform provides the hosting structure for each of the services shown in Figure 2 as described below.

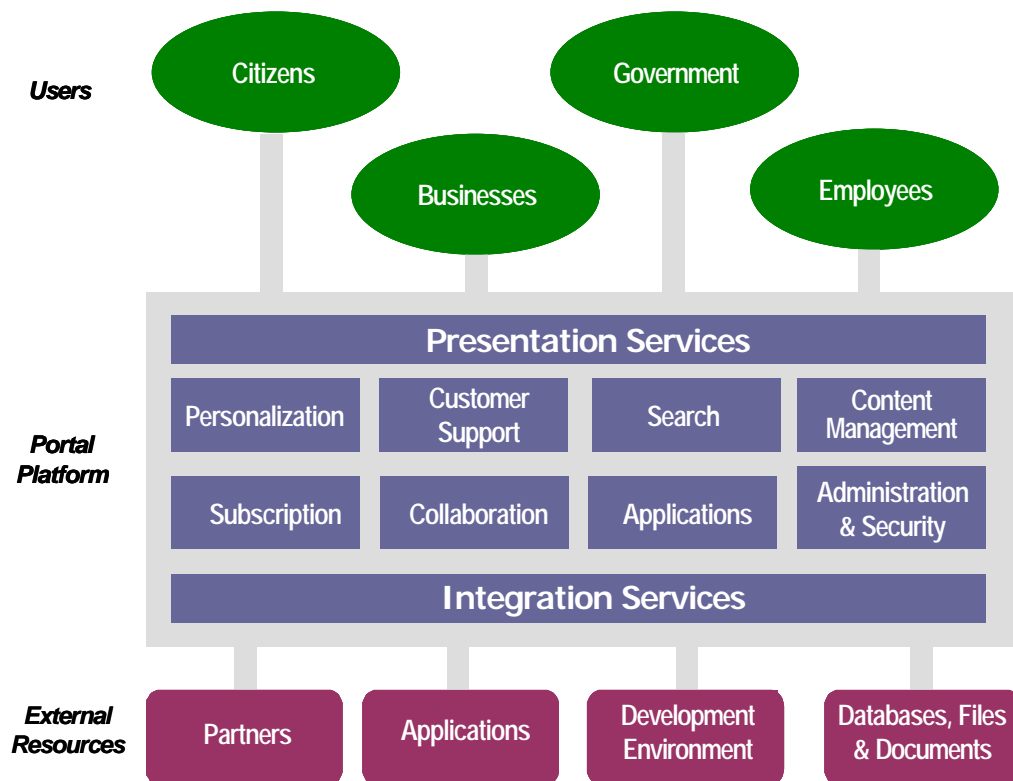


Figure 2. – Louisiana e-Government Portal Architecture

Louisiana's e-Government Portal

- ✍ *Presentation Services.* Users have a single point of access to e-Government through the portal platform's Presentation Services component. Presentation Services is an integral part of the Web Application Server, providing connectivity for all available e-Government access channels including Internet, Intranet, wireless and private networks. While the Presentation Services software supports the thin-client web-based browser as the most widely used interface, it can adapt the user interface to accommodate pervasive devices such as wireless phones, kiosks, and personal data assistants.
- ✍ *Integration Services.* The Integration Services component of the portal architecture provides a common facility for interfacing to external enterprise and business partner web resources so that are made available for use from the e-Government environment. For example, resources such as census data from the U.S. Bureau of Census, information residing in agency data stores, or the Louisiana E-Mail can be interfaced through Integration Services in such a fashion that their contribution appears as seamless to users as do resources that are resident on the portal. The Web Application Server also provides the Integration Services software component.
- ✍ *Personalization.* Personalization services permit the State Portal to offer web views that serve the individual needs of citizens, businesses, employees, and local and state government entities. This process is managed by allowing users to define content preferences (access to the specific services and information they need) as part of their user profile. For example, a plant manager can register to receive a notification either when logging on to the Portal or via email each time a solicitation or addenda is posted for a commodity for which the company has registered in the Louisiana Procurement and Contract (LaPAC) Network, news announcements from the Departments of Economic Development and Labor, and notifications from the Department of Environmental Quality Monthly Regulation Changes, Interim Legislature Committee, demographic and employment data from state agencies, and syndicated information such as stock market, weather and current news. The portal can also adjust to user views by observing information and application usage and behavioral click stream data. The personalization software is a component of the Web Application Server.
- ✍ *Customer Support.* Because of the speed and availability of technology-enabled channels to interface with government, such as the Internet, citizens are expecting immediate response to their comments or requests for information and support. Our customer support services requirements will be addressed by the customer relationship management (CRM) "self-service" component of the portal platform. CRM builds dialogue with customers, delivers responses to their information requests from a knowledge base and automatically solicits feedback on the quality of the response. Powerful search capabilities ensure that customer questions are answered quickly and accurately. When customers have new or unique inquiries that cannot be sufficiently answered from the knowledge base, CRM will escalate the inquiry to the appropriate individual or organization. Through its workflow management scheme, CRM monitors each escalated inquiry to ensure that customers receive a timely, satisfactory response. CRM also provides the capability to incorporate new responses in the knowledge base, thereby increasing the effectiveness of the "self-help" feature. A "best of breed" software product will be integrated into the portal platform making CRM available to all state organizations.
- ✍ *Collaboration.* Collaboration provides a virtual environment that permits communities of stakeholders or workgroups to interact seamlessly, contributing to one another's success, regardless of physical location. Collaboration services will provide an extensive set of processes such as Calendar, Messaging, Contacts, and To Do Lists. Upon accessing the portal, users will be alerted that information, messages, events, requests or responses are available based on their identified role in specific collaboration or workgroups. Collaboration will be implemented using features of the Web Application Server.
- ✍ *E-Commerce.* E-Commerce services provides the capability to host web applications. A state events calendar is an example of a shared web application planned for the portal. Also, agencies can use E-Commerce services to offer goods and services transactions through the

Louisiana's e-Government Portal

portal using either of two scenarios. Under the first scenario, agency storefronts that are resident on the E-Mall may be accessed from the portal through Integration Services. In this case, E-Mall resident applications are virtually integrated with applications residing on the portal platform. Under the second scenario, agency transactions that require specific business logic that is tightly coupled to an agency database or application may host their business logic at the agency or in an agency partition on the portal platform and utilize the E-Mall's common payment and remittance engine to collect or disperse any applicable funds. Both scenarios allow agencies to leverage the comprehensive financial and reporting facilities available through the E-Mall from their portal based web presence.

✍ *Content Management.* The capability to provide content and manage it effectively is key to obtaining maximum value from the portal's search and personalization tools. The content management solution will allow non-technical information content contributors to use it effectively with a reasonable amount of training. The metadata for Web content are based on industry standards, it will utilize a state-specific, custom-controlled vocabulary, and it will combine human and machine input to maximize its accuracy. Contributors may add intelligence to content by creating rich descriptive metadata from articles, documents, or Web pages using either fully automated or computer assisted processes. Content items can be further categorized by subject so that they can be linked to other relevant information. Information providers and Web contributors can enter, modify, and classify content through templates; manage approvals and revisions easily; and move these content sections from the development environment to the production environment. The content management tools will be provided with the Web Application Server.

✍ *Search.* Search is a portal knowledge management tool that allows searches and retrieval of information distributed across uniform structured, non-uniform structured, semi-structured, and unstructured documents (including word-processing documents, spreadsheets, presentations, e-mail, Adobe Acrobat files, Web pages, and databases). The proposed search is unique because it retrieves information from unstructured sources with the same precision as for structured data using a common search system. It will handle increasing volumes of content and allow for unlimited growth of users and queries with no degradation in performance or accuracy. It also features search operators, modifiers, natural language queries, Boolean searches, fuzzy search, and multiple language capabilities. The search functionality will be provided by a "best of breed" search engine.

✍ *Subscription.* Subscription services provide the capability to push information and notifications to users, based on their specified relationship and interaction with the State, when they want. It provides them with customized and selected information that affects their lives as citizens, employers or employees, parents, students, etc. It also includes anticipating and predicting customer needs and suggesting resources that meet those needs. The Web Application Server *Portlet* component provides the subscription capability.

✍ *Administration & Security.* Administration and security services provide users with single sign-on access to all authorized information and services. It also ensures that users are protected from exposure to information and services for which they are not authorized and guarantees the integrity of information and services. The portal security services are consistent with and will leverage the enterprise security architecture established by OIT. The Administration functions provide information about portal utilization and performance. This information is used to measure effectiveness, to plan new features, and as a basis for capacity planning. The Web Application Server provides Administration and Security services and WebTrends will be used for portal utilization and performance analysis.

2. *Interoperability.* The e-Government Portal is designed to be interoperable and usable statewide and worldwide, primarily through web-enabled software. A key feature of the design is its extensibility to a variety of other access channels leveraging technologies such as wireless, kiosk, and telephonic. Interoperability requirements will be included in all contracts issued for the portal project. All components selected for the portal will be based on a well-structured architecture and will verify interoperability in benchmark installations and demonstrations. The openness of the

Louisiana's e-Government Portal

design also permits replacing components as better technology emerges and provides the capability to easily migrate to another hosting platform if that need arises.

3. *Scalability.* Since the portal will offer new services that are not available from the state web sites today, the number of user sessions are expected to increase significantly. Additionally, the portal platform can be extended to host agency web assets; therefore the number of web sites and applications being co-hosted with the state portal is expected to increase substantially. Because of these factors the portal is designed to be highly and rapidly scalable both from a capacity and functionality perspective. The contracts issued to develop and implement the portal will include these scalability requirements.

4. *Maintaining the System.* OCS will host the e-Government Portal environment and DNR, with assistance from a qualified service provider, will provide operational support for the database and the other portal Platform software components. The proposed project includes training resources to fully transition this operational support to state staff by the end of the project timeframe. Similarly, the professional services firm selected to develop the applications level components for the state portal and the participating agency web sites will initially provide maintenance support for the web applications. The project also includes training resources to allow transition application maintenance to the respective state organization by the end of the project period.

From the onset, OES will be responsible for maintenance of the enterprise level information content and web pages contained in the e-Government Portal. Similarly, state agencies and entities will be responsible for maintaining their individual web pages and information content within the portal environment.

H. Implementation Approach

Implementation of the proposed e-Government Portal project will be performed in eight highly related tasks. The tasks are (1) procurement, (2) detail design of the e-Government architecture, (3) establishment of the portal hosting environment, (4) development and deployment of the State Portal, (5) development and deployment of the Content Management capability, (6) development and deployment of the Customer Relationship Management capability, (7) development and deployment of the portal capabilities for partner agencies, and (8) extension of the demonstrated capabilities statewide. Figure 3 is the project schedule and following is a description of each task.

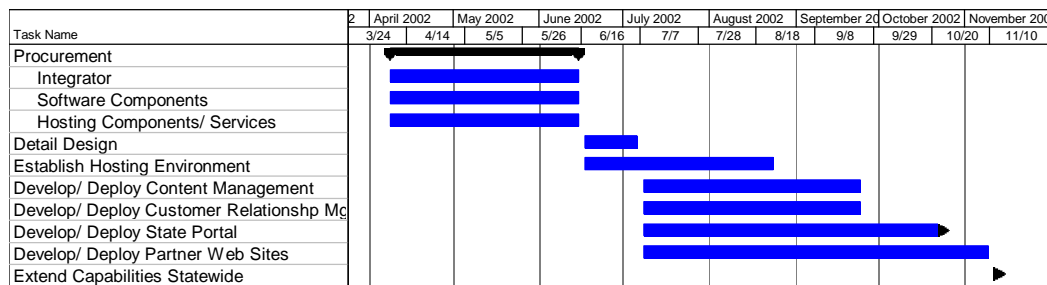


Figure 3. e-Government Portal Project Schedule

1. *Procurement.* Three procurement activities will be used to obtain the professional and support services, software components, and equipment required to implement the e-Government Portal project.

The first procurement activity will select an integrator who will provide the professional services to refine the detail design and to conduct the development and integration activities required for the State Portal, Content Management, Customer Relationship Management, and partner websites. This procurement will also provide post-delivery enhancements and applications support for the portal during the remainder of the 24 month project period.

Louisiana's e-Government Portal

✍ The second procurement activity will obtain the software components required for the project. This procurement will also include any vendor training, vendor installation support, and maintenance support required for the specific products.

✍ The third procurement activity will be used to obtain the additional hardware and support services necessary to establish the hosting environment within the shared services environment. Also included are services to provide operational support to the hosting environment, once established, for the remainder of the 24-month project period.

2. *Detail design.* Using the architecture shown in Figure 2 above together with input from the e-Services Focus Group and partner agencies, the detail application design will be developed. This design will specify each Portal sub element, database design details, web page layouts, and component implementation approach. An integrated work plan will be developed that defines the activities and schedule required to implement the Portal, the Customer Relationship Management and Content Management components, and the partner agency web sites.

3. *Establish hosting environment.* Using the detail design, the platform and processes required to develop, deploy, and operate the State Portal and associated partner web sites will be implemented. The environment established under this task will support the activities included in Tasks 4 through 7. The configuration of the hosting environment will be scaled over time as the processing demands of the state increase.

4. *Develop/deploy State Portal.* The objective of this task is to integrate the portal software components within the hosting environment as specified in the detail design and to operationally launch the product as the State e-Government Portal. The initial deployment of the State Portal is scheduled in the seventh month of the project; however, this task will continue for the duration of the project as planned enhancements are added to the initially deployed baseline product.

5. *Develop/deploy Content Management.* This task will establish the Content Management capability on the portal platform. While this component will be integral to all portal and web assets residing in the hosting environment established under this project, it is an enterprise capability. Agencies will be able to use the capability to manage any of their content, regardless of where it is created or published.

6. *Develop/deploy Customer Relationship Management.* This task will establish the Customer Relationship Management capability on the portal platform. This enterprise support facility will support customer inquiries for any state information or service.

7. *Develop/deploy partner agency portals.* This task will develop and deploy portals (Web sites) for the four partner agencies in order to demonstrate the multi-agency applicability of this project. These portals will be hosted in the environment established in task 3, leveraging applicable software and reusable functions established in tasks 4, 5, and 6.

8. *Extend capabilities statewide.* When the State Portal is operational and multi-agency support has been successfully demonstrated by deploying the Partner Agency Web Sites, the portal environment will be offered to all state agencies. This outreach will be facilitated through the *e-Government Academy* that is a formal set of presentations that explain all aspects of the portal platform and the actions necessary for agencies to take advantage of its offerings. Agency personnel will be encouraged to register for the *e-Government Academy* which will be conducted on a frequent, scheduled basis.

I. Assessment of Risks

The risks involved in this project are minimal. OES has conducted extensive research on what other states and the private sector are doing with portal, Content Management, and Customer Relationship Management technology. In addition, the e-Services Focus Group performed a functional analysis of the e-Government needs for Louisiana and developed the recommended standards and technical approach that form the basis of this proposal. All products identified in this proposal meet the recommended standards. To further minimize risks, OES has conducted discussions with manufacturers of products that provide the technologies included in this proposal,

Louisiana's e-Government Portal

focusing on their functionality, interoperability, and ease of integration. Feedback from the manufacturer exchanges has been incorporated into this proposed approach.

The e-Government project also minimizes risks by broadening the base of project participation and oversight to include representation from each of the controlling agencies (e.g., State Purchasing and Contractual Review), the OCS (the hosting provider), the DNR (application and database support provider), the e-Services Focus Group (representing a variety of departments), and the Partner agencies.

While portal technology is new to Louisiana government, all levels of government are rapidly adopting it across the United States. Section IV-D describes several states' application of portal technology. There is also a broad base of vendors with demonstrated, proven solutions.

J. Integration with Existing Technologies

Two significant features of the proposed approach are that the State Portal will conform to the enterprise standards and initiatives established by OIT and it will make maximum use of existing technologies. These features are depicted in Figure 4, the Portal Platform Configuration.

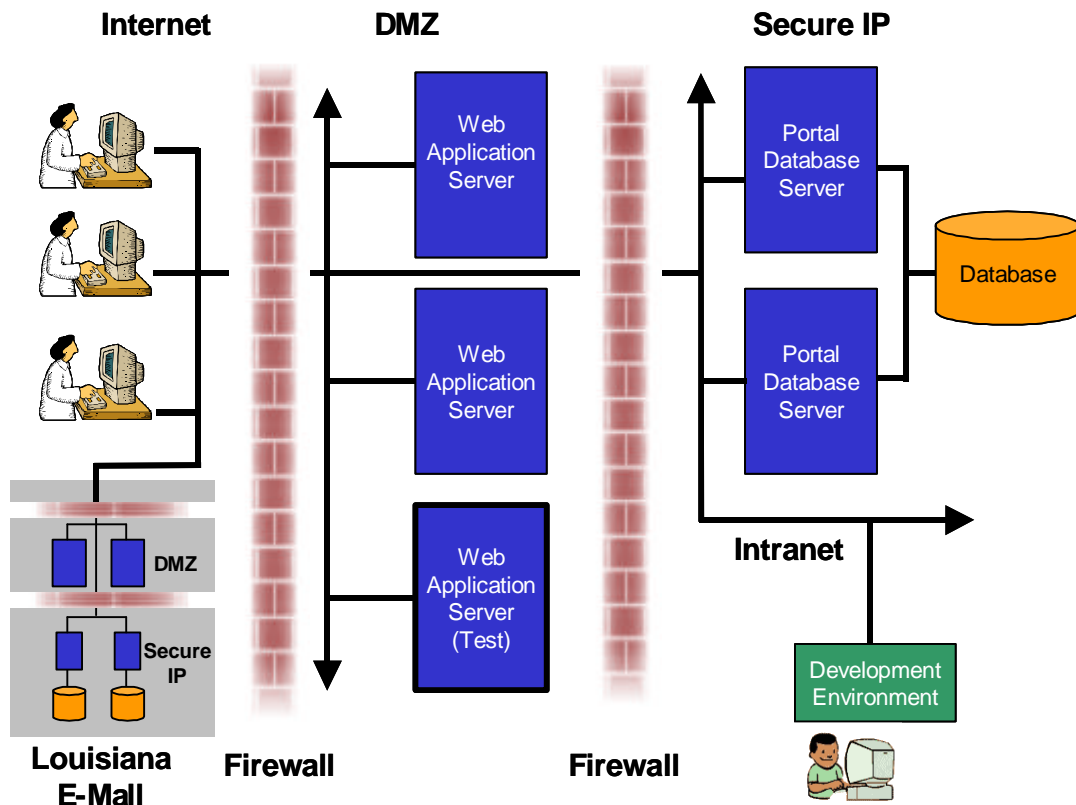


Figure 4. – Portal Platform Configuration

As shown, the portal components will be integrated into OIT's enterprise security architecture which ensures appropriate protection through a proven, two area security arrangement which includes a Demilitarized Zone (DMZ) and a Secure IP area. The hardware platforms hosting the Web Application Server (s) and interfacing externally will reside in the DMZ, protected from the Internet by a firewall. These servers will also host the Search engine and the Customer Relationship Management component. A separate security area is used to support the Portal Database Server, which is hosted on platform(s) that reside behind a second firewall arrangement within the Secure IP area. The Portal Database Server hosts the database management system, the portal file system, the Content Management component and the data stores for the desktop

Louisiana's e-Government Portal

Development Environment. Because these components manage information that has access restrictions and whose integrity must be assured to the highest degree, they require the higher level of security provided by the Secure IP offering.

The design integrates the Louisiana E-Mall as a core e-commerce functional component of the proposed architecture as shown in Figure 4. Because the Louisiana E-Mall employs a dual firewall security approach similar to the OIT enterprise security architecture and all sensitive data exchanges between the portal and the E-Mall utilize a secure communications protocol, the confidentiality and integrity of information flowing between these two physically separated environments is assured.

The project will retain the current InfoLouisiana graphic design so that users will experience a familiar "look and feel" when they access the new portal. The approach also allows existing applications, such as the Louisiana Services Directory, to be directly ported to the new environment. In addition, the new portal will incorporate existing enterprise web pages and provide improved access to the branch, departmental and agency web sites currently accessible through InfoLouisiana.

The proposed approach utilizes and supports the LA Connections IT Consolidation Initiative by leveraging and extending the shared services hosting capabilities offered by the OCS. Under this project OCS will host the shared services portal platform which will be utilized by OES and participating agencies to host their respective portal applications. Moreover, the project will establish a structure so that any state agency can effectively use the platform to host their web applications under the shared services arrangement.

K. Project Budget and Costs

1. Equipment.

| EQUIPMENT | | | |
|---|----------|------------|------------------|
| <u>Database Server.</u> Includes the cost to purchase and install two quad processor servers to host the portal database and content management system. The server will be configured with RAID storage, network connectivity, and other peripherals necessary to support the requirements of the Portal project. | | | |
| <u>Application Server.</u> Includes the cost to purchase and install three dual processor servers to host the Portal Application Server for the production and test environments. | | | |
| Item | Quantity | Unit Price | Total |
| Database Server | 2 | \$ 40,000 | \$ 80,000 |
| Application Server | 3 | \$ 12,000 | \$ 36,000 |
| RAID Array Storage | 1 | \$ 13,000 | \$ 13,000 |
| Equipment Rack | 1 | \$ 8,000 | \$ 8,000 |
| Total equipment cost | | | \$137,000 |

2. Software

| SOFTWARE | |
|---|--|
| <u>Web Application Server.</u> Includes fees for license and two year maintenance for Application Server software platform for hosting the state e-Government Portal. Cost is based on the number of units of hardware processing capability configured for the application. | |
| <u>Database.</u> Includes fees for license and two year maintenance for the Database Software to support the database requirements for the state e-Government Portal. Cost is based on the number of units of hardware processing capability configured for the application. Content management is included in the database server pricing. | |
| <u>Web Developer Suite.</u> The Web Developer Suite will be used as the developer tool for implementing Web access applications for the State Portal. Includes fees for license and two years of support. Cost is based on the number of seats allocated for development of this project. | |

Louisiana's e-Government Portal

Enterprise Manager. The Enterprise Manager software will be used to monitor and control the performance of the portal software application. It provides diagnostic, tuning, and change management tools. Includes fees for license and two years of support. Cost is based on the number of units of hardware processing capability configured for the application.

Customer Relationship Management. The Customer Relationship Management software will be used to provide support for users of State Portal. Includes fees for license and two years of support. Cost is based on the number of state workstations from which customer support may be provided.

Search Engine. The search engine will be the primary user tool for locating information content and services available through the portal. Includes fees for the license and two years of support. Cost is based on one instance of the search engine, which will be available to all applications utilizing the portal platform.

Webtrends. Webtrends is a management tool that will be used to monitor and report the performance, site design, effectiveness of all applications hosted within the portal platform. Includes fees for the license and two years of support.

Cost Summary for licenses

| <u>Item</u> | <u>Quantity</u> | <u>Unit Price</u> | <u>Total</u> |
|----------------------------------|-----------------|-------------------|--------------|
| Web Application Server | 6 cpu | \$ 14,700/cpu | \$ 88,200 |
| Personalization Option | 4 cpu | \$ 7,350/cpu | \$ 29,400 |
| Database Management Software | 4 cpu | \$ 29,250/cpu | \$117,000 |
| Web Development Suite | 2 seats | \$ 3,675/seat | \$ 7,350 |
| Enterprise Manager | 4 cpu | \$ 2,250/cpu | \$ 9,000 |
| Customer Relationship Management | 1 | \$ 40,000 | \$ 40,000 |
| Search Engine | 1 | \$ 50,000 | \$ 50,000 |
| Webtrends | 1 | \$ 1,600 | \$ 1,600 |
| Subtotal | | | \$342,550 |

Cost Summary for Maintenance (2 years)

| <u>Item</u> | <u>Quantity</u> | <u>Unit Price</u> | <u>Total</u> |
|---|-----------------|-------------------|------------------|
| Web Application Server | 12 cpu-yr | \$ 3,233/cpu/yr | \$ 38,800 |
| Personalization Option | 8 cpu-yr | \$ 1,620/cpu/yr | \$ 12,960 |
| Data Base Management Software | 8 cpu-yr | \$ 6,500/cpu/yr | \$ 52,000 |
| Web Development Suite | 4 seat-yr | \$ 810/seat/yr | \$ 3,240 |
| Enterprise Manager | 8 cpu-yr | \$ 480cpu/yr | \$ 3,840 |
| Search Engine | 2 yr | \$ 5,000/yr | \$ 10,000 |
| Webtrends | 2 yr | \$ 500/yr | \$ 1,000 |
| Subtotal | | | \$121,840 |
| Total software lease and maintenance costs | | | \$464,390 |

3. *Telecommunications.* This configuration will utilize networking already in place or planned by OCS.
4. *Professional/Contracted Services.*

PROFESSIONAL SERVICES

e-Government Portal Integration Contract. Professional services will be required to design, implement and maintain the proposed State Portal, the Content Management and Customer Relationship Management systems, and the four Partner agency Web sites. It is estimated that 2,300 hours of consulting services are required for development and implementation.

Application and Operational Support. An additional 1,160 hours of professional services support will be required during the 17 month period after portal delivery to support the new portal products from both an operational and an application perspective. During this period state technical personnel will be trained in support of the products.

Cost Summary for professional services:

| <u>Item</u> | <u>Quantity</u> | <u>Unit Price</u> | <u>Total</u> |
|---|-----------------|-------------------|--------------|
| e-Government Portal Integration | | | |
| Portal Design | 80 | \$120/hr | \$ 9,600 |
| Establish Portal Environment | 80 | \$120/hr | \$ 9,600 |
| State Portal implementation | 1,280 | \$100/hr | \$128,000 |
| Content Management implementation | 160 | \$120/hr | \$ 19,200 |
| Customer Relationship Mgmt implementation | 100 | \$120/hr | \$ 12,000 |
| Agency Portal implementations | 600 | \$100/hr | \$ 60,000 |

Louisiana's e-Government Portal

| | | | |
|-------------------------------------|--------------|----------|------------------|
| Subtotal | 2,300 | | \$238,400 |
| Application and Operational Support | | | |
| Web Site Applications Support | 640 | \$110/hr | \$ 70,400 |
| Database Administration | 520 | \$110/hr | <u>\$ 57,200</u> |
| Subtotal | 1,160 | | \$127,600 |
| Total | 3,460 | | \$366,000 |

5. Other.

| OTHER COSTS | | | |
|---|-----------------|-------------------|------------------|
| <p><u>Training.</u> Beginning in the third month of the project, service providers will supply hardware and software support personnel for the proposed portal development environment. By month 7, the environment will be upgraded to the full operational configuration and its use will be extended to hosting of the operational State and Agency Portals. These costs cover the training required for state personnel to attain the product specific skills required to assume software and hardware support responsibilities by the end of the 24 month project and to conduct user training on the Content Management System.</p> | | | |
| Cost Summary: | | | |
| <u>Item</u> | <u>Quantity</u> | <u>Unit Price</u> | <u>Total</u> |
| Portal products support training | 4 | \$ 3,600 | \$ 14,400 |
| Database support training | 2 | \$ 2,400 | \$ 4,800 |
| Content Management User training | 5 | \$ 2,400 | \$ 12,000 |
| Total | | | \$ 31,200 |

V FUNDING REQUESTED

| FUNDING REQUESTED | | | |
|---|-------------------|----------------------|-------------------|
| <p>In the event there are unused grant funds that result from efficiencies or cost saving, OES requests permission to apply these funds to implement agency web sites for Partner agencies in addition to the partners identified in this proposal.</p> | | | |
| <p>Other Sources: When agencies other than the Partners funded under this proposal utilize the portal environment for their web sites, they will fund their development, integration and hosting costs based on the standard integration and hosting rate schedule. Estimates for these extensions are not included in the project cost or funding request.</p> | | | |
| <u>Funding Category</u> | <u>Total Cost</u> | <u>Other Sources</u> | <u>Funding</u> |
| <u>Requested</u> | | | |
| Equipment | 137,000 | 0 | 137,000 |
| Software | 464,390 | 0 | 464,390 |
| Professional Services | 366,000 | 0 | 366,000 |
| Other | <u>31,200</u> | <u>0</u> | <u>31,200</u> |
| Total | \$ 998,590 | 0 | \$ 998,590 |

VI COST/BENEFIT ANALYSIS

The Fiscal Note included as attachment I shows the increase in total cost of ownership for the Portal to be \$1,059,510 for the initial three years of the Portal Initiative. Of this total, \$876,750 is the one time investment to establish the Portal environment and \$182,760 is for three years of recurring support cost increase for the new environment. The benefits of the State Portal will provide a very favorable return on this investment (ROI). Based on conservative estimates, the state should realize a combined reduction of more than 80,000 hours annually in (1) resources required to perform the current level of job tasks using the Portal functionality rather than State web site and (2) resources required to handle manual processes that will be automated by Portal

Louisiana's e-Government Portal

functionality. There are three categories of Portal benefits; (1) User Satisfaction, (2) Productivity, and (3) Resources Savings. Following is description of the key expected benefits of the State Portal Project.

Benefit: Users control their relationship with government

Category: User Satisfaction

The personalization feature will permit citizens and state employees to easily assemble different information and services in their Portal page view of state government based on their interests, job location, and intentions. Personalization further permits customization of how information is presented. This selectable, personalized view of information and resources, coupled with the 24x7 availability of the Portal, will allow users to control their relationship with government.

Benefit: Reduced technical support requirement

Category: Productivity, Resources Savings

Under the Portal Content Management concept, agency functional personnel will be responsible for publishing their information to the Web. This feature will greatly reduce the need for technical personnel to be involved in updating web content or changing web linkages. In addition to reducing technical support requirements, by allocating update responsibility to the individual most familiar with the information, the owner-based content management approach should improve timeliness of update and overall accuracy of the information.

Benefit: Shortened service delivery time and reduced development and maintenance resource requirements

Category: Resource savings

Hosting the Portal framework in the shared-services environment will reduce the time required to activate new web-based services because, in most cases, equipment and skilled personnel will be immediately available. In instances where an upgrade is required, the upgrade time will be minimized because the standard architecture will be utilized thereby eliminating the need for extensive design activity.

Further advantages accrue in maintenance and support due to utilizing the standard Portal framework in a shared-services environment. Agencies will be able to share special skilled individuals rather than each having to individually staff for those skills. Agencies furthermore will not acquire dedicated equipment and software packages; they will only pay for the portion of shared-resources they utilize.

Benefit: Reduce phone calls and email requests

Category: Customer Satisfaction, Resources Savings

The benefits of a Portal-based Customer Relationship Management (CRM) capability are widely documented by governmental organizations. Results from case studies show that organizations that use a CRM-based self-service approach to answer their most frequently asked questions can conservatively reduce phone calls and email requests by 25%. By incorporating responses to the 200 most frequently asked questions of state government in the self-service knowledge base, the Portal CRM function will assist in avoiding significant time required to handle email and phone calls from day one. Based on an estimate of reducing the email and/or phone call requests by 250 daily, this function could avoid expending 25,000 hours annually of state employee time to manually handle those requests.

Benefit: More accurate access to information

Category: Customer Satisfaction, Productivity

Louisiana's e-Government Portal

The accurate indexing feature of the Content Management service and the advanced capabilities of the Search engine will assure users access to the best available information that is referenced through the Portal. Because of this, users will avoid the need to reference other sources for either information content or validation, improving overall performance and user satisfaction.

Benefit: Simple user interface maximizes benefit to average user and reduces training requirements

Category: Customer Satisfaction, Resources Saving

The Portal design will provide a simple, intuitive interface based on Best Practice approaches and will offer that approach to the other web sites that utilize the Portal framework. This common, simple user interface will simplify the use of the Portal and associated web sites eliminating the need for special training and substantially reducing familiarization time.

Benefit: Collaboration enhances work group interactions

Category: Productivity, Resources Savings

The Portal collaboration feature will permit members of workgroups to interact from their workstations, reducing the number of meetings and associated time off to travel to a common physical location for the meetings. Organizations utilizing Portal Collaboration report substantial productivity and cost-savings due to reduced time out-of-office, elimination of the need for schedule synchronization, and more timely resolution of issues.

Benefit: Reduced navigation time, storage requirements, and network traffic

Category: Productivity, Resources Saving

The Portal will provide for pushing relevant information to users based on their indicated and/or observed preferences rather than relying on navigating through a maze of web pages to find that information. This feature will significantly reduce navigation time. In addition, the capability to Push and Pull information to/from a common data repository through an individual or workgroup's Portal presence is more efficient than messaging or email approaches because of the reduced network and storage resources required.

Based on estimates from organizations that have implemented Portals, the benefits of reduced navigation time, more accurate access to information, and a simpler user interface have substantially reduced the time required to perform similar job functions on the Portal versus their traditional web sites. Conservative estimates of these improvements are 25% time reduction. Since users of InfoLouisiana currently spend in excess of 800,000 hours annually on the web site, these features could benefit users with a 200,000-hour annual reduction in online time required to do the same functions they perform today. Assuming state employees account for one quarter of the usage of InfoLouisiana, the state portion of this avoidance is conservatively estimated to be 50,000 hours annually.

Louisiana's e-Government Portal

VII SIGNED STANDARD FORM

The information included in this proposal represents the best estimates of benefits, costs, and potential for innovative use of technology for the Louisiana e-Government Portal project. The Division of Administration will comply with all reporting requirements established by the Louisiana Technology Innovations Council.

Mark C. Drennen, Commissioner of Administration

Date

Allen L. Doescher, Assistant Commissioner

Date

Ed Leachman, Director

Date

ATTACHMENT I - FISCAL NOTE

PAGE 1

| STATE COSTS | Expenditure Increase (Decrease) | | |
|-------------------------|---------------------------------|----------------|------------------------------|
| | 2001-02 | 2002-03 | 2003-04 |
| Personal Services | 0 | 0 | 0 |
| Operating Services | 403,470 | 60,920 | 60,920 ⁽¹⁾ |
| Professional Services | 14,400 | 281,200 | 70,400 |
| Other Charges | 0 | 15,600 | 15,600 |
| Equipment | 137,000 | 0 | 0 |
| Total State Exp. | 554,870 | 357,720 | 146,920⁽¹⁾ |

| PERSONNEL ⁽²⁾ (By Classification) | 2001-02 | | 2002-03 | | 2003-04 | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| | No. | Av. | No. | Av. | No. | Av. |
| | <u>Pos.</u> | <u>Sal.</u> | <u>Pos.</u> | <u>Sal.</u> | <u>Pos.</u> | <u>Sal.</u> |
| No personnel increase required | | | | | | |

MEANS OF FINANCING FOR ABOVE EXPENDITURES

| <u>FISCAL YEAR</u> | <u>STATE GEN. FUND</u> | <u>AGENCY SELF GENERATED</u> | <u>RESTRICTED/ OTHER (specify)</u> | <u>FEDERAL FUNDS</u> | <u>LOCAL FUNDS</u> |
|--------------------|------------------------|------------------------------|------------------------------------|----------------------|--------------------|
| 2001-02 | 554,870 | | | | |
| 2002-03 | 357,720 | | | | |
| 2003-04 | 146,920 ⁽¹⁾ | | | | |

Narrative Explanation of Expenditure Impact

The expenditure increases for FY 2001/2002, FY 2002/2003, and the first three quarters of FY 2003-04 total \$ 998,590. It is proposed that all these expenditures be covered by the Technology Innovations Fund grant. Beginning in fourth quarter FY 2003-04 the annual maintenance fee for the software and hardware products acquired in the previous two years under TIF funding will total \$60,920. OCS will incorporate these recurring costs into the total cost of providing shared computing services which will be allocated to the various agencies on a usage basis and will be paid from agency budgets. The cost allocated to agencies for use of these shared services should be less than if they acquired the same services individually.

The strategy contained in this proposal is to bring current state resources to a competency level adequate to support the new portal environment and applications, thereby eliminating the requirement for additional staff. This proposal provides for the training necessary to establish the required competency level and for professional services support until the time that state personnel can assume full support responsibility.

Note 1. These shared services costs will be allocated to participating agencies on a usage basis.

Note 2. No increase in state personnel is required to support this project.

| Revenue (Increase Decrease) | | | | | |
|------------------------------|----------------------------------|--|--|--------------------------------|------------------------------|
| <u>FISCAL</u> <u>YEAR</u> | <u>STATE GEN.</u> <u>FUND</u> | <u>AGENCY SELF</u> <u>GENERATED</u> | <u>RESTRICTED/</u> <u>OTHER (specify)</u> | <u>FEDERAL</u> <u>FUNDS</u> | <u>LOCAL</u> <u>FUNDS</u> |
| 2000-01 | | | | | |
| 2001-02 | | | | | |
| 2002-03 | | | | | |

Narrative Explanation of Revenue Impact

This project does not directly impact state revenues.